REMARKS

Claims 1-18 are all the claims pending in the application.

By this Amendment, Applicant editorially amends claims 1-9. The amendments to claims 1-9 were made for reasons of precision of language and consistency, and do not narrow the literal scope of the claims and thus do not implicate an estoppel in the application of the doctrine of equivalents. The amendments to claims 1-9 were not made for reasons of patentability.

In addition, Applicant respectfully points out that claim 9 is rewritten in its independent form.

Moreover, Applicant adds claims 10-18. Claims 10-18 are clearly supported throughout the specification, *e.g.*, Fig. 1; pages 6-10.

Preliminary Matters

Applicant thanks the Examiner for initialing the references listed on Form PTO-1449 submitted with the Information Disclosure Statement filed on February 25, 2000. Applicant also thanks the Examiner for acknowledging the claim to foreign priority and for confirming that the certified copy of the priority documents was received.

Claim Objections

The Examiner objected to claims 1 and 3 because of minor informalities. Independently, Applicant has amended the claims for improved conformity with the U.S. practice. This

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coincidentally overcame all of the Examiner's problems with the claims. Applicant, therefore,

respectfully requests the Examiner to withdraw the objections to claims 1 and 3.

Claim Rejections under 35 U.S.C. § 102

Claims 1-6, 8, and 9 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S.

Patent No. 6,463,075 to Hoebeke (hereinafter "Hoebeke"). Applicant respectfully traverses this

rejection in view of the following comments.

Of the rejected claims, only claims 1, 4, 6, and 9 are independent. Independent claim 1

recites a unique combination of elements not found in the cited reference. This combination

includes a recitation of: "determining by said line terminator a first plurality of bits according to

an identification of a selected element and a second plurality of bits according to an

identification of a locally predefined function, said selected element being selected out of a set of

in-line elements comprising at least said in-line element in order to execute said locally

predefined function" and "at least one network terminator of said plurality of network

terminators, is coupled via said in-line element to said line terminator by a dedicated branch and

a common branch, respectively."

Applicant respectfully submits that the unique combination of claim 1 including at least

the claimed first plurality of bits according to identification of a selected element and a second

plurality of bits according to an identification of a locally predefined function where a network

terminator is coupled to the line terminator via an in-line element is absent from Hoebeke.

Applicant has carefully studied Hoebeke's discussion of the central station broadcasting group

identifiers and each network terminal recognizing whether it belongs to the group and its index

within the group, which is not similar to a first plurality of bits identifying a selected element that

is coupled between the line terminator and the network terminator and a second plurality of bits

identifying a locally predefined function, as set forth in claim 1.

Hoebeke teaches a central station coupled to a plurality of network terminals via the

cascade connection of a common link and respective individual links. The network terminals

transmit information in a time multiplexed way towards the central station. The central station

assigns timeslots for the upstream transmission to the network terminals by broadcasting group

identifiers. Each group identifier identifies a pre-composed group of network terminals, which

respect to a predetermined order for occupying upstream timeslots. In this way, the central

station can assign a plurality of timeslots to a plurality of network terminals by transmission of

only one single group identifier (col. 2, lines 22 to 33). As a result, the number of control

signaling is reduced.

In Hoebeke, the control center composes groups made up of network terminals and

assigns group identifiers and indexes to the terminals (Fig. 3; col. 7, lines 9 to 18). This

information is broadcasted to the terminals in a PLOAM cell, and each terminal interprets the

message to determine if it relates to this terminal. If it does, then the group identifier and the

index are stored in the memory of the terminal. As a result, the terminal knows in which time

slot to transmit information upstream to the control center (Fig. 2; col. 7, lines 26 to 46).

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Hoebeke, however, has nothing to do with in-line elements. Hoebeke even fails to

mention the existence of such elements. They are simply not the focus of Hoebeke's teachings

as Hoebeke relates to the network terminals determining their dedicated time slots to transmit

information upstream. Also, in Hoebeke, there are no teachings or suggestions of a locally

predefined function. That is, Hoebeke teaches transmitting a group identifier and an index. An

index is an identifier of the terminal's position within the group. This identifier does not identify

any sort of local function or a local operation that the terminal should perform. In other words,

Hoebeke fails to teach or suggest "determining by a line terminator a second plurality of bit that

identifies a locally predefined function." In Hoebeke, neither the group identifier, nor the index

identifies a local function. Instead, Hoebeke's identifiers simply identify a group of network

terminals and the position of each terminal within a group. Hoebeke fails to teach or suggest

having a second plurality of bits identify a locally predefined function.

In addition, Hoebeke relates to the network terminals recognizing that a group identifier

includes its particular terminal and storing the group identifier and the index in its memory.

Hoebeke, however, has nothing to do with in-line elements. In fact, Hoebeke fails to teach or

suggest any elements that can be present between the central station and the network terminals,

e.g., see Fig 1 which illustrates the central station, common link, individual links and the network

terminals. In other words, Hoebeke only teaches that the network terminals are coupled to the

central station via dedicated and common links but fails to teach or suggest any other elements

that would couple the two or would be included in the links. Moreover, not only is this feature

absent from Hoebeke's teachings but also the group identifiers and indexes broadcasted to the

terminals are being processed and relate only to the terminals. In other words, they have nothing

to do with the in-line elements of claim 1.

In short, Hoebeke fails to teach or suggest having an in-line element coupling a network

terminator to a line terminator. In addition, Hoebeke fails to teach or suggest having a plurality

of bits identify a predefined local function. Finally, the group identifier and the index (alleged

first and second plurality of bits) have nothing to do with an in-line element. In Hoebeke, the

group identifier and the index relate to the network terminal and are processed in the network

terminal.

Therefore, "determining by said line terminator a first plurality of bits according to an

identification of a selected element and a second plurality of bits according to an identification of

a locally predefined function, said selected element being selected out of a set of in-line elements

comprising at least said in-line element in order to execute said locally predefined function" and

"at least one network terminator of said plurality of network terminals, is coupled via said in-line

element to said line terminator by a dedicated branch and a common branch, respectively," as set

forth by claim 1 is not suggested or taught by Hoebeke, which lacks having a in-line element that

would couple the network terminal and the line terminator, and having a second set of bits

identify a local function to be executed by the selected in-line element.

For at least these exemplary reasons, Applicant respectfully submits that independent

claim 1 is patentably distinguishable from Hoebeke. Applicant therefore respectfully requests

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the Examiner to reconsider and withdraw this rejection of independent claim 1. Claims 2 and 3

are patentable at least by virtue of their dependency on claim 1.

Independent claims 4, 6, and 9 recite features similar to the features argued above with

respect to claim 1, namely, determining a first plurality of bits according to an identification of a

selected element and a second plurality of bits according to an identification of a locally

predefined function, said selected element being selected out of said plurality of in-line elements

to execute said locally predefined function and where said tree-like network includes a plurality

of network terminators being coupled via said plurality of in-line elements to said line terminator

by dedicated branches and a common branch, respectively. Therefore, these arguments are

submitted to apply with equal force herein. For at least substantially similar reasons, therefore,

Applicant respectfully submits that claims 4, 6, and 9 are patentably distinguishable from

Hoebeke. In addition claims 5 and 8 are patentable at least by virtue of their dependency on

claims 4 and 6, respectively.

Claim Rejections under 35 U.S.C. § 103

Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Hoebeke in view

of U.S. Patent No. 6,201,622 to Lobbett et al. (hereinafter "Lobbett"). Applicant respectfully

traverses this rejection with respect to the dependent upon claim 6, claim 7. Applicant has

already demonstrated that Hoebeke does not meet all the requirements of independent claim 6.

Lobbett is relied upon only for its teaching of an amplifier in an optical network. As such,

Lobbett clearly fails to cure the deficient teaching of Hoebeke.

Moreover, the Examiner alleges that it would have been obvious to combine Hoebeke

and Lobbett to reduce the noise problem (see Page 4 of the Office Action). Applicant

respectfully points out that claim 6 recites that a selected element may be an amplifier. Hoebeke

teaches a group identifier and an index for a network terminal. It would make little sense to

replace Hoebeke's network terminals with Lobbett's amplifiers. In addition, since it is the

terminals that generate and transmit signals and thereby need a time slot, it would make little

sense to add a group identifier and the index to the amplifier, since the amplifier only amplifies

the signal and would not transmit its own individual signal to the central station as such it does

not need a time slot assigned.

Clearly, Lobbett does not compensate for the above-identified deficiencies of Hoebeke.

Together, the combined teachings of these references would not have (and could not have) led

the artisan of ordinary skill to have achieved the subject matter of claim 6. Since claim 7 is

dependent upon claim 6, it may be patentable at least by virtue of its dependency.

New Claims

In order to provide more varied protection, Applicant adds claims 10-18. Claims 10-18

are patentable over the prior art references cited by the Examiner at least by virtue of their

dependency on claim 1.

In addition, claim 10 is additionally patentable at least by virtue of its recitation that "said

plurality of in-line elements are positioned on said common link and said dedicated branch

between said line terminator and the plurality of network terminals." In other words, Hoebeke's

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network terminals cannot be equated to the in-line elements as set forth in claim 10. For at least

this additional reason, Applicant respectfully submits that dependent claim 10 is patentable over

the prior art references cited by the Examiner.

Claim 13 recites "said second plurality of bits identifying said locally predefined function

is identifying an operation that said selected element must execute" and claim 14 recites that the

second plurality of bits identify a type of an operation to be performed by the selected element.

In Hoebeke, an index only defines the position of the terminal within the group. Hoebeke clearly

fails to teach or suggest using identifiers to identify an operation, as set forth in claim 13 or type

of an operation as set forth in claim 14, that the selected element should execute. For at least

these additional reasons, Applicant respectfully submits that claims 13 and 14 are patentable over

the references cited by the Examiner.

Moreover, claim 15 recites: "wherein said first plurality of bits identifies a selected

element, said selected element being a single system component." The Examiner alleges that a

group identifier of Hoebeke is equivalent to a first plurality of bits as set forth in claim 1, for

example. Applicant respectfully point out that in Hoebeke group identifiers identify a plurality

of terminals that compose a group. In other words, Hoebeke clearly fails to teach or suggest a

first plurality of bits identifying a single component.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed

to be in order, and such actions are hereby solicited. If any points remain in issue which the
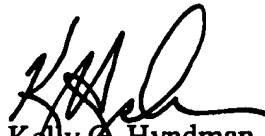
Examiner feels may be best resolved through a personal or telephone interview, the Examiner is

kindly invited to contact the undersigned attorney at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue

Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any

overpayments to said Deposit Account.

Respectfully submitted,

SUGHRUE MION, PLLC   Kelly G. Hyndman
Telephone: (202) 293-7060   Registration No. 39,234
Facsimile: (202) 293-7860

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